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EXAMINER	
BROWN, MICHAEL J	

ART UNIT	PAPER NUMBER
2116	

NOTIFICATION DATE	DELIVERY MODE
11/29/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/605,515	LU, DE-JEN	
	Examiner	Art Unit	
	Michael J. Brown	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-11,15 and 16* is/are rejected.

7)☐ Claim(s) *4-6 and 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 4-6 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 1-2, 7-10, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris(US Patent 5,630,148) further in view of Kelkar(US Patent 7,194,254).

As to claim 1, Norris discloses a method of managing power consumption of a web browsing device(computer system 10, see Fig. 1) when accessing a web

page(application programs 50 and 52, see Fig. 2), the web browsing device including a CPU(processor 12, see Fig. 1) having a plurality of frequency or voltage settings(performance states, see Figs. 3a and 3b), the method comprising providing a prediction table(performance state table 56, see Fig. 2) listing predicted frequency or voltage settings of the CPU for a plurality of web pages(application programs 50 and 52, see Fig. 2), if the application program is listed in the prediction table, setting the frequency or voltage of the CPU to the predicted frequency or voltage of the CPU for the application programs listed in the prediction table(see column 4, line 65- column 5, line 4), otherwise setting the frequency or voltage of the CPU to a default value(see column 7, lines 11-16), and processing the application program with the CPU set to the predicted frequency or voltage setting(see column 6, lines 7-16). However, Norris fails to specifically disclose the web-browsing device being used for specifically accessing a web page. Also, Norris fails to specifically disclose the prediction table consisting of addresses of web pages.

Kelkar teaches a web-browsing device(wireless communication device 10, see Fig. 1) being used for specifically accessing a web page(URLs; see column 6, line 25). Also, Kelkar teaches a prediction table(restricted URL list file 140, see Fig. 2) consisting of addresses of web pages. It would have been obvious to one of ordinary skill in the art to combine Kelkar's wireless communication device for accessing URLs with Norris' computer system in order to replace Norris' application programs 50 and 52 with Kelkar's URLs. The motivation to do so would have been to compare a desired URL to the restricted URL list file(see Kelkar Abstract, lines 7-8) in order to select performance

stat to maximize performance during processor intensive functions and to maximize power conservation during interactive functions(see Norris Abstract, lines 8-10).

As to claim 2, Norris discloses the method further comprising storing the original frequency or voltage setting of the CPU, and after processing the web page with the CPU set to the predicted frequency or voltage setting, setting the frequency or voltage of the CPU to the original frequency or voltage setting(see Fig. 6, Items 144, 146, and 148).

As to claim 7, Norris discloses the method wherein setting the frequency or voltage setting of the CPU involves changing the CPU core voltage and frequency(see column 5, lines 1-4).

As to claim 8, Kelkar teaches the method wherein the web browsing device is a portable device(see column 2, lines 54-58) and the web page contains hyper text markup language (HTML) content, digital image data, extensible markup language (XML) content, portable document format (PDF) content, or a video bitstream capable of being directly processed by a web browser of the web-browsing device(see column 5, lines 4-7).

As to claim 9, Norris discloses a web browsing device(computer system 10, see Fig. 1) comprising a CPU(processor 12, see Fig. 1) having a plurality of frequency or voltage settings(performance states, see Figs. 3a and 3b), a storage device(memory subsystem 18, see Fig. 1) storing a prediction table(performance state table 56, see Fig. 2) listing predicted frequency or voltage settings of the CPU for a plurality of web pages(application programs 50 and 52, see Fig. 2), and a power manager(performance

manager 44, see Fig. 2) for setting the frequency or voltage setting of the CPU when accessing a web page(application programs 50 and 52, see Fig. 2), wherein if the address of the web page is listed in the prediction table(see column 4, line 65- column 5, line 4), the power manager sets the frequency or voltage of the CPU to the predicted frequency or voltage setting for the web page listed in the prediction table, and if the address of the web page is not listed in the prediction table(see column 7, lines 11-16), the power manager sets the frequency or voltage of the CPU to a default value(see column 7, lines 11-16). However, Norris fails to specifically disclose the web-browsing device being used for specifically accessing a web page. Also, Norris fails to specifically disclose the prediction table consisting of addresses of web pages.

Kelkar teaches a web-browsing device(wireless communication device 10, see Fig. 1) being used for specifically accessing a web page(URLs; see column 6, line 25). Also, Kelkar teaches a prediction table(restricted URL list file 140, see Fig. 2) consisting of addresses of web pages. It would have been obvious to one of ordinary skill in the art to combine Kelkar's wireless communication device for accessing URLs with Norris' computer system in order to replace Norris' application programs 50 and 52 with Kelkar's URLs. The motivation to do so would have been to compare a desired URL to the restricted URL list file(see Kelkar Abstract, lines 7-8) in order to select performance stat to maximize performance during processor intensive functions and to maximize power conservation during interactive functions(see Norris Abstract, lines 8-10).

As to claim 10, Norris discloses the web browsing device wherein the power manager first stores the original frequency or voltage setting of the CPU, and after the

CPU processes the web page with the CPU set to the predicted frequency or voltage setting, the power manager sets the frequency or voltage setting of the CPU to the original frequency or voltage setting(see Fig. 6, Items 144, 146, and 148).

As to claim 15, Norris discloses the web-browsing device wherein the plurality of frequency or voltage settings of the CPU comprises a plurality of CPU core voltage and frequency settings(see column 5, lines 1-4).

As to claim 16, Kelkar teaches the web browsing device wherein the web browsing device is a portable device(see column 2, lines 54-58) and the web page contains hyper text markup language (HTML) content, extensible markup language (XML) content, digital image data, portable document format (PDF) content, or a video bitstream capable of being directly processed by a web browser of the web browsing device(see column 5, lines 4-7).

3. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris(US Patent 5,630,148) in view of Kelkar(US Patent 7,194,254) as applied to claims 1 and 9 above, and further in view of Brown et al.(US Patent 7,149,905).

As to claim 3, Norris in view of Kelkar teach the method of power consumption of a web device as cited in claim 1, however, Norris and Kelkar fail to disclose the method further comprising tracking the CPU workload during the processing of the web page, calculating an optimal frequency or voltage setting for the CPU based on the CPU workload during the processing of the web page, and updating the prediction table to reflect the optimal frequency or voltage setting for the web page.

Brown teaches a method comprising tracking a CPU(processor 110, see Fig. 1) workload during the processing of the web page, calculating an optimal frequency or voltage setting for the CPU based on the CPU workload during the processing of the web page, and updating a prediction table(voltage selection table 132, see Fig. 1) to reflect the optimal frequency or voltage setting for the web page(see column 6, lines 49-56). It would have been obvious to combine Brown's method of updating the prediction table to reflect the optimal frequency to Norris and Kelkar's method in order to configure a power supply, based on the voltage setting retrieved from the voltage selection table(see Brown's Abstract, lines 8-9). The motivation to do so would be supply the CPU with optimal clock speed(see Brown's Abstract, line 10).

As to claim 11, Norris in view of Kelkar teaches the web browsing device as cited in claim 9; however, Norris and Kelkar fail to teach the web browsing device wherein the power manager further tracks the CPU workload during the processing of the web page, calculates an optimal frequency or voltage setting for the CPU based on the CPU workload during the processing of the web page, and updates the prediction table to reflect the optimal frequency or voltage setting of the CPU for the web page.

Brown teaches teach a web browsing device(computer system 100, see Fig. 1) wherein the power manager further tracks a CPU(processor 110, see Fig. 1) workload during the processing of the web page, calculates an optimal frequency or voltage setting for the CPU based on the CPU workload during the processing of the web page, and updates a prediction table(voltage selection table 132, see Fig. 1) to reflect the optimal frequency or voltage setting of the CPU for the web page(see column 6, lines

49-56). It would have been obvious to combine Brown's computer system of updating the prediction table to reflect the optimal frequency to Norris and Kelkar's method in order to configure a power supply, based on the voltage setting retrieved from the voltage selection table(see Brown's Abstract, lines 8-9). The motivation to do so would be supply the CPU with optimal clock speed(see Brown's Abstract, line 10).

Response to Arguments

4. Applicant's arguments filed 9/13/2007 have been fully considered but they are not persuasive. Applicant argues that a combined teaching of Norris and Kelkar neither discloses a table including addresses of web pages and frequency or voltage settings of the processor for the web pages, nor teaches using the table to select frequency or voltage set to the processor according to an address of a web page. Examiner disagrees as Norris discloses a performance state table 56(prediction table) which is used to select frequency or voltage set to a processor. Norris does fail to disclose the table consisting of the addresses of web pages. However, Kelkar teaches a restricted URL list file 140(prediction table) which does consist of URL's(web pages). Norris and Kelkar combined accurately teach the limitation of a table including addresses of web pages and frequency or voltage settings of the processor for the web pages, using the table to select frequency or voltage set to the processor according to an address of a web page.

Applicant also argues that Norris is silent on changing the core voltage of the processor. Examiner disagrees as Norris discloses programming the clock speed

register 34 for the specified frequency of the processor clock 32(see column 5, lines 3-4). By programming to a specified frequency obviously the frequency is changed; however, the core voltage is also affected.

Applicant also argues that Brown fails to teach or suggest updating the voltage selection table to reflect the optimum voltage setting for the specific application. Examiner disagrees as Brown teaches generating and downloading a new voltage selection table containing the optimum voltage setting for the unassigned entry 134(web page/specific application).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Brown whose telephone number is (571)272-5932. The examiner can normally be reached Monday-Thursday from 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571)272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2116